

SAL-UG122 Series

"One-to-Two" Separate Hopper Loaders

Date: Mar, 2013

Version: Ver.B (English)



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1. General Description



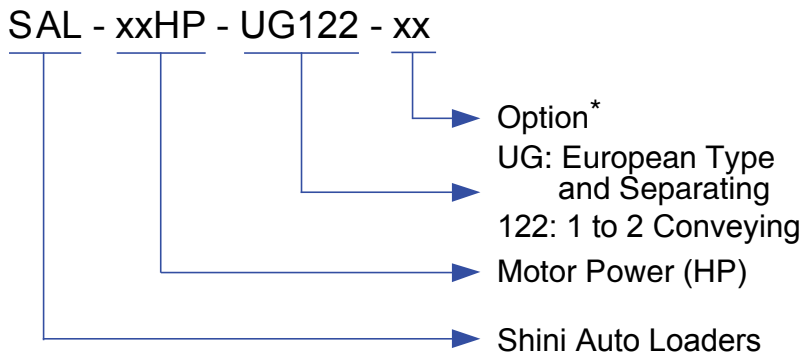
Read this manual carefully before operation to prevent damage of the machine or personal injuries.

"One-to-Two" Separate hopper loaders are designed and developed on the basis of original European separate-vacuum hopper Loaders. They feature more functions, easy to operate, and convenient to install. This model, equipped with a high pressure blower and two SHR-U-S type European central vacuum hoppers, is applicable to two dehumidifying and drying machines (dehumidifying dryer "SDD") or one gravimetric blender "SGB" to process plastic materials. Besides that , it can also realize the "One-to-Two" way of conveying materials to different moulding machines or hoppers to greatly lower the cost.



Model: SAL-7.5HP-UG122 Main Unit + SHR-24U-S Hopper

1.1 Coding Principle



Note: * D=Double-stage Blower CE=CE Conformity

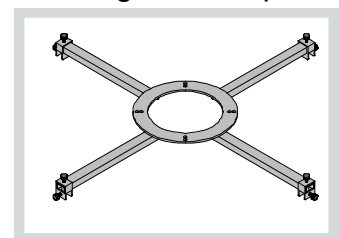
1.2 Feature

Standard configuration

- 1) "One-to-Two" hopper loader can greatly lower the cost.
- 2) The dust collective chamber features a cyclone separator and a dust collective bin to effectively reduce the load of the filter.
- 3) Separate hopper receivers are designed in European style, made of stainless steel and ensure no contamination to materials.
- 4) Separate dust collector is convenient for dust cleaning.
- 5) Main unit equips with faults and motor overload indicators to show faults fast.
- 6) The main body of SAL-2HP~5HP equips with vacuum-breaking valve and SAL-7.5HP~10HP main body equips with vaccum valve to protect the blower.
- 7) Standardly equipped with warning lamp as the alarm device.
- 8) CE safety plug ensures safe and reliable operation.
- 9) SCH-6U/12U/24U storage hoppers with Standard and Insulated type are available as options, which can be installed on reed switch storage hopper and also on IMM directly.

Accessory option

- 1) In the case of much impurity or recycled materials included in raw materials, main unit can be equipped with air accumulator auto washing unit as options, and add "A" at the model behind. (Suitable for SAL-3.5HP-UG and models above, except for SAL-UGP series.)
- 2) Optionally provide multi-functional installation frame HMB-900 with 900 mm largest dia. adjusting range for selection.
- 3) Buzzer available as an option.



HMB-900

All service work should be carried out by a person with technical training or corresponding professional experience. The manual contains instructions for both handling and servicing. Chapter 6, which contains service instructions intended for service engineers. Other chapters contain instructions for the daily operator.

Any modifications of the machine must be approved by SHINI in order to avoid personal injury and damage to machine. We shall not be liable for any damage caused by unauthorized change of the machine.

Our company provides excellent after-sales service. Should you have any problem during using the machine, please contact the company or the local vendor.

Headquarter and Taipei factory:

Tel: (886) 2 2680 9119

Shini Plastics Technologies (Dongguan), Inc:

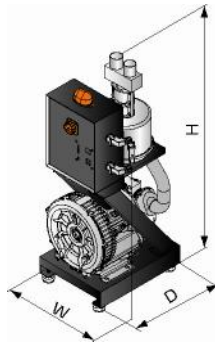
Tel: (86) 769 8111 6600

Shini Plastics Technologies India Pvt.Ltd.:

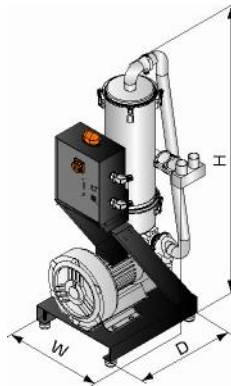
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1.3 Technical Specifications

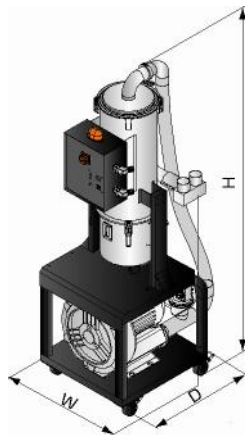
1.3.1 Technical Specifications (Main Unit)



Picture 1-1: SAL-1HP/2HP-UG122

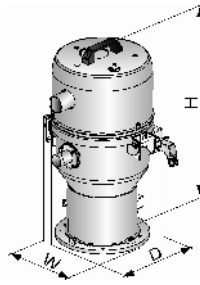


Picture 1-2: SAL-3.5HP/5HP-UG122



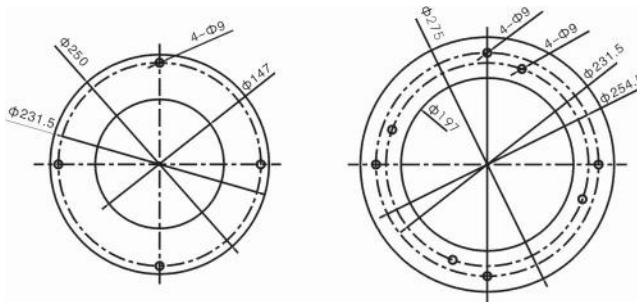
Picture 1-3: SAL-7.5HP/10HP-UG122

1.3.2 Hopper



Picture 1-4: Hopper SHR-U-S Technical Specifications

1.3.3 SHR-U-S Hopper Base Installation Size



Picture 1-5: Hopper Base Installation Size

1.3.4 Specifications

Table 1-1: Specifications

Main Unit				Hopper Receivers				Loading Pipe Dia. (Inch))	Air Suction Pipe Dia.(Inch)	Loading Capacity (kg / hr r)
Model	Motor Power (kW) (50 / 60Hz)	Dimensions (mm) H×W×D	Weight (kg)	Applicable Model	Capacity (L)	Dimensions(mm) H×W×D	Weight (kg)			
SAL-1HP-UG122	0.75 / 0.85 (3Φ)	1020×400×500	52	2×SHR-3U-S	3	585×260×385	4.5	1.5	2	400
SAL-2HP-UG122	1.5 / 1.8 (3Φ)	1020×400×500	56	2×SHR-3U-S	6	555×305×430	7.5	1.5	2	550
SAL-3.5HP-UG122	2.4 / 2.6 (3Φ)	1380×505×615	130	2×SHR-6U-S	12	616×335×475	9	1.5	2	850
SAL-5HP-UG122	3.75 / 4.2 (3Φ)	1380×505×615	175	2×SHR-12U-S	12	616×335×475	9	1.5	2	1200
SAL-5HP-UG122-D	3.75 / 4.2 (3Φ)	1380×700×615	180	2×SHR-12U-S	12	616×335×475	9	1.5	2	1350
SAL-7.5HP-UG122	5.5 / 6.3 (3Φ)	1830×680×615	181	2×SHR-24U-S	24	826×335×475	11	2	2.5	1450
SAL-7.5HP-UG122-D	5.5 / 6.3 (3Φ)	1830×875×740	183	2×SHR-24U-S	24	826×335×475	11	2	2.5	1600
SAL-10HP-UG122	7.5 / 8.6 (3Φ)	1830×660×740	185	2×SHR-36U-S	36	1036×335×475	12	2	2.5	1800
SAL-10HP-UG122-D	7.5 / 8.6 (3Φ)	1830×875×740	192	2×SHR-36U-S	36	1036×335×475	12	2	2.5	2000

Note: 1) "D" stands for double-stage blower, "122" stands for "one to two" conveying function.

2) For hopper inside polished ones, add "P" at hopper model behind.

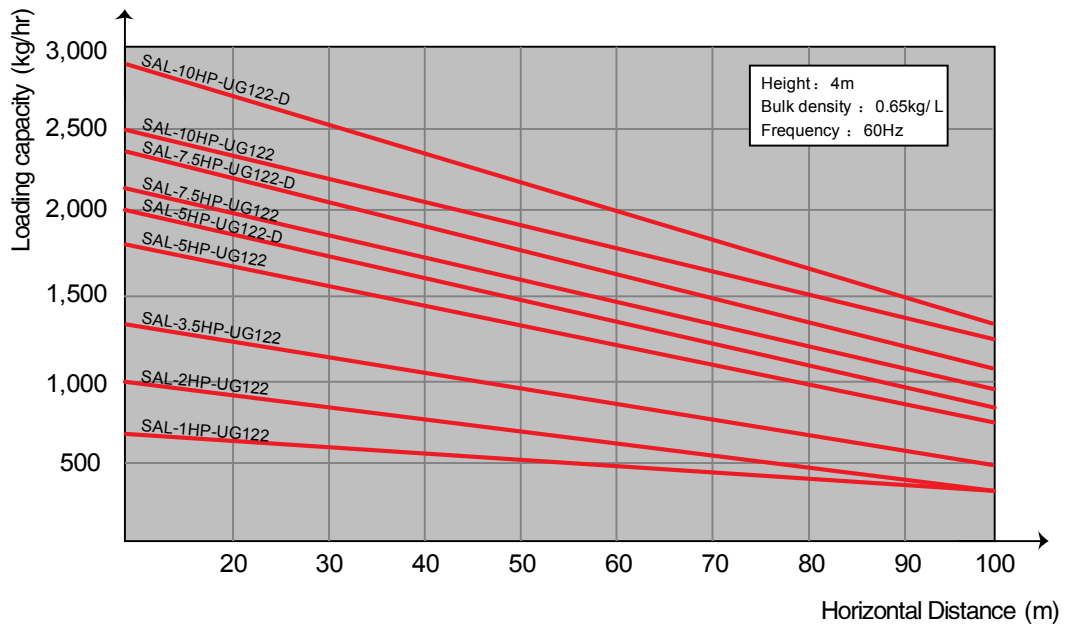
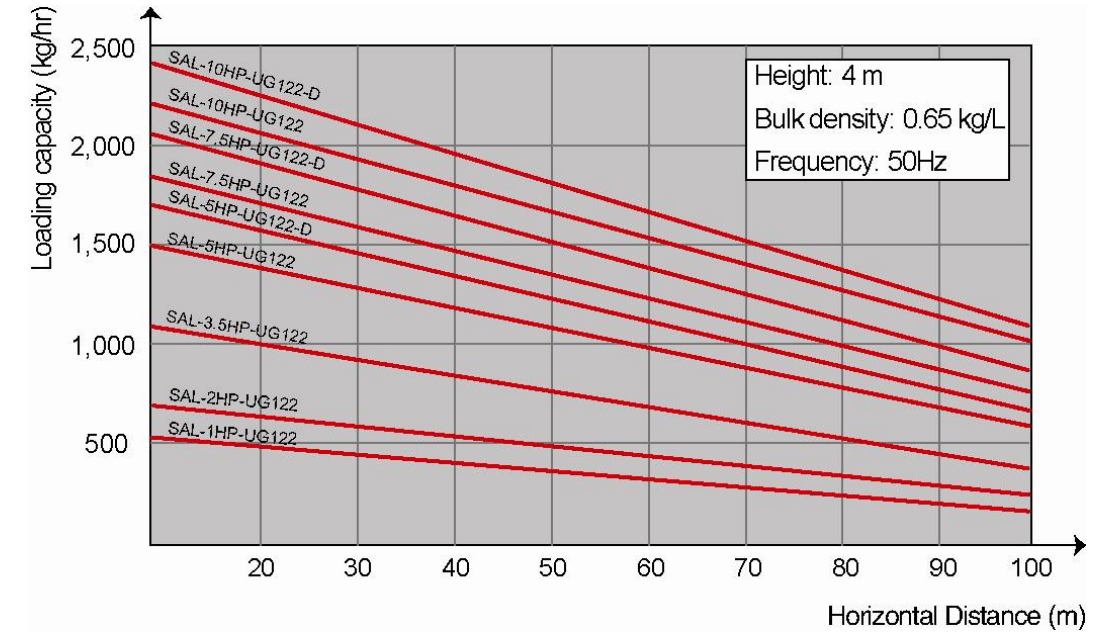
3) It is available to select ACF-1 cyclone dust separator (Applicable to SAL-1HP-UG-122 and SAL-2HP-UG-122 main unit).

4) Optional air accumulator and filter cleaning device, and add "A" at model behind (Suitable for SAL-3.5HP-UG122 and models above).

5) Test condition of conveying capacity: Plastic material of bulk density 0.65kg/L, dia. 3~5 mm, vertical conveying height: 4m, horizontal conveying distance: 5m.

6) Power supply: 3Φ, 230/400/460/575V, 50/60Hz.

1.3.5 Loading Capacity



Picture 1-6: Loading Capacity

1.4 Safety Regulations

Strictly abide by the following safety regulations to prevent damage of the machine or personal injuries.

1.4.1 Safety Signs and Labels



All the electrical components should be installed by professional technicians.

Turn off the main switch and control switch during maintenance or repair.



Warning! High voltage!

This sign is attached on the cover of control box!



Warning! Be careful!

Be more careful at the place where this sign appears!



Attention!

No need for regular inspection because all the electrical parts in the control unit are fixed tightly!

1.5 Exemption Clause

The following statements clarify the responsibilities and regulations born by any buyer or user who purchases products and accessories from Shini (including employees and agents).

Shini is exempted from liability for any costs, fees, claims and losses caused by reasons below:

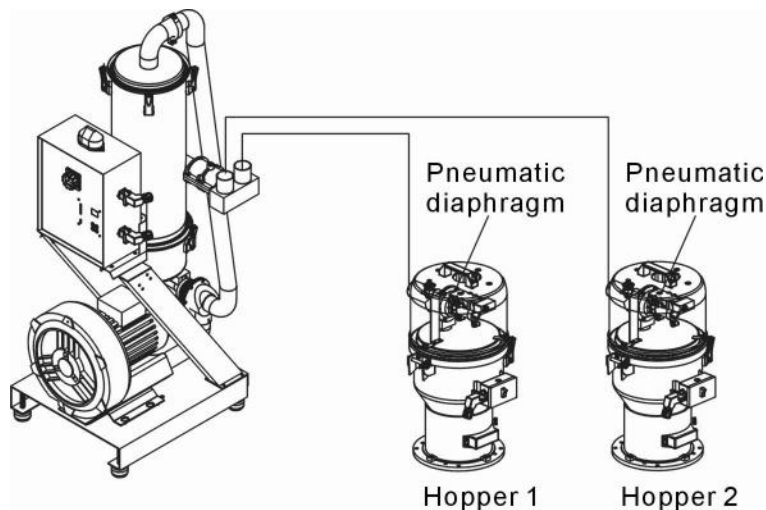
1. Any careless or man-made installations, operation and maintenances upon machines without referring to the Manual prior to machine using.
2. Any incidents beyond human reasonable controls, which include man-made vicious or deliberate damages or abnormal power, and machine faults caused by irresistible natural disasters including fire, flood, storm and earthquake.
3. Any operational actions that are not authorized by Shini upon machine, including adding or replacing accessories, dismantling, delivering or repairing.
4. Employing consumables or oil media that are not appointed by Shini.

2. Structure Characteristics and Working Principle

2.1 Main Functions

SAL-UG "Euro" separate-vacuum hopper loaders are applicable to convey plastic granule. Its principle is to make use of motor generated vacuum to form a pressure gap and to convey plastic material by this way.

2.1.1 Working Principle

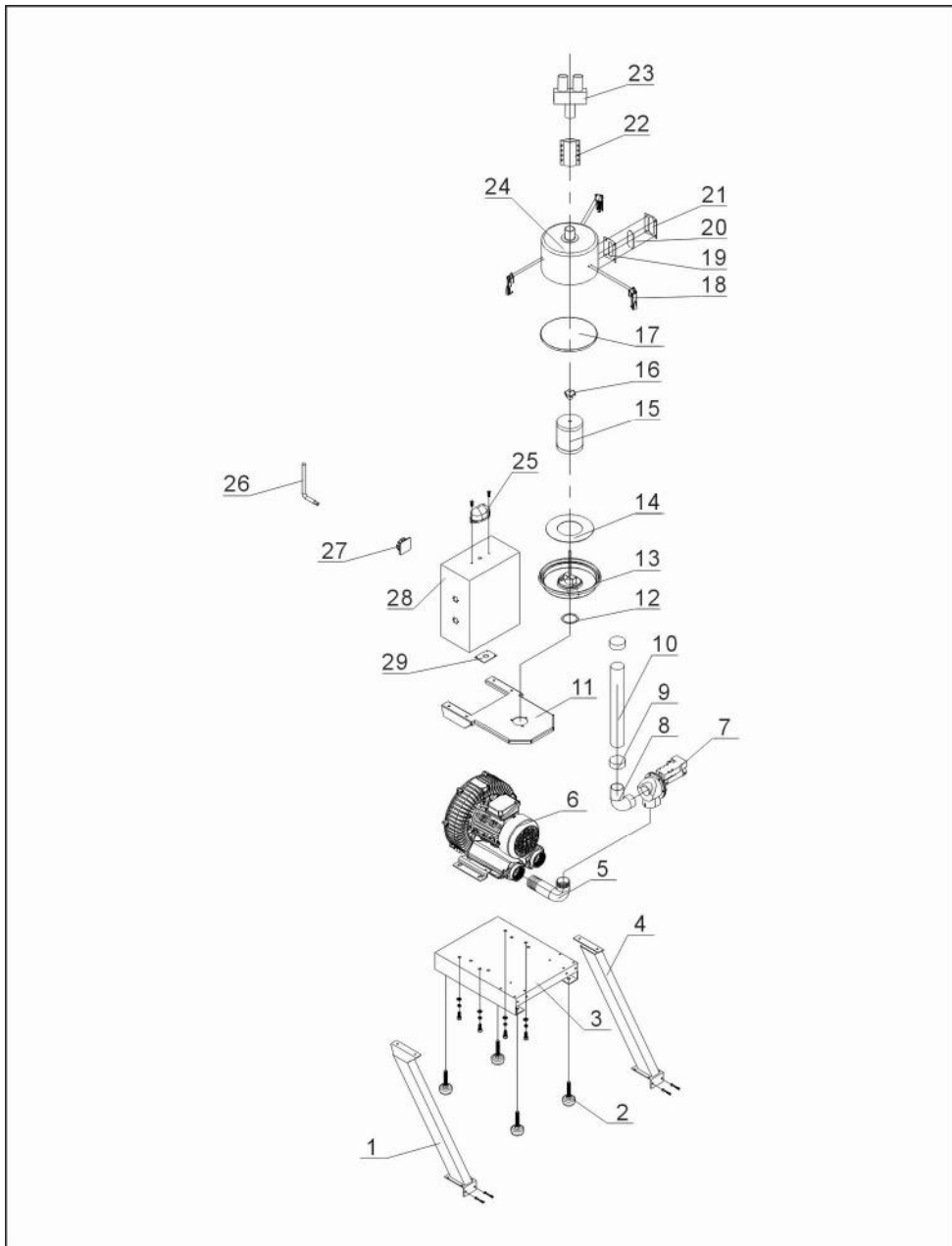


Picture 2-1: Working Principle

Turn on the switch of the feed station to start the wind blower and open the relevant diaphragm valve of the hopper. A high pressure vacuum is generated in the hopper and the non-return flap is thus closed. The crew material is thereafter suctioned into the hopper due to differential pressure. After finishing the suctioning action, stop the motor and the vacuum breaking valve is opened. The crew material is dropped by gravity. When the magnetic proximity switch detect that there is no material, the motor starts up again. When in continuously 3 times failed to load material, the red alarming light for relevant feeding station on electrical control box starts to sound the alarm. When all the suction switches are turned on, the system will work from feeding station1 to 2 circularly.

2.2 Assembly Drawing

2.2.1 Assembly Drawing (SAL-1HP/2HP-UG122)



Remarks: Please refer to material list 2.2.2 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-2: Assembly Drawing (SAL-1HP/2HP-UG122)

2.2.2 Parts List (SAL-1HP/2HP-UG122)

Table 2-1: Parts List (SAL-1HP/2HP-UG122)

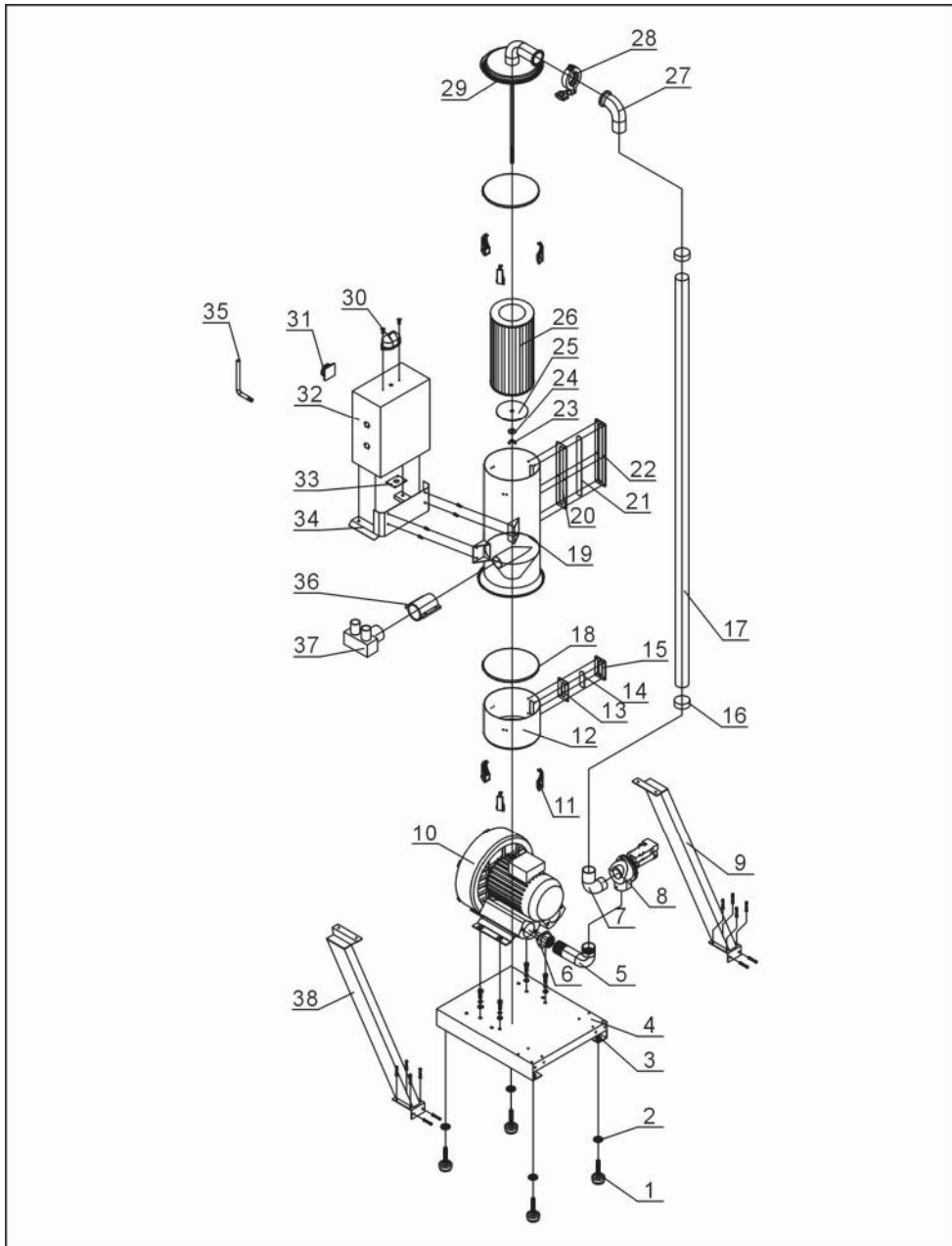
No.	Name	Part No.	No.	Name	Part No.
1	Left standing pole	-	15	Filter	YR50708000000
2	Anti-vibration pad	YW03005000000	16	Hexagon nut 5/16"	YW69051600000
3	Base	-	17	Filter fastener	YR10708000100
4	Right stand column	-	18	Snap hook	YW02003000400
5	Air inlet pipe	-	19	Four hole material window fastener	YW09000000400
6	High-pressure blower 1HP	BM30031000150	20	Four acryl	YR40001200100
	High-pressure blower 2HP	BM30042000050	21	Four hole material windw sheet iron	YR40000400000
7	Vacuum breaking diaphragm valve 1.5"	BY20015000050	22	Pipe connector 2"	BW20002002050
8	Vacuum-breaking diaphragm valve piping	-	23	T-branch pipe	-
9	Tube bundle 2.5"	YW02002500000	24	Filter barrel	-
10	Steel wired plastic pipe 2"	YR60205040100	25	Alarm light	YE83305100200
11	Supporting structure of filter barrel	-	26	Dedicated wrench for anti-theft screw	JT40450000000
12	Filter barrel base fastener	-	27	Main power switch	YE10210300000
13	Filter barrel lid assembly	-	28	Control cabinet	BH32012040050
14	Filter barrel lid fastener	YR10030000000	29	Line jig fixed plate	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.2.3 Assembly Drawing (SAL-3.5HP/5HP(-D)-122)



Remarks: Please refer to material list 2.2.4 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-3: Assembly Drawing (SAL-3.5HP/5HP(-D)-UG122)

2.2.4 Parts List (SAL-3.5HP/5HP (-D)-UG122)

Table 2-2: Parts List (SAL-3.5HP/5HP (-D)-UG122)

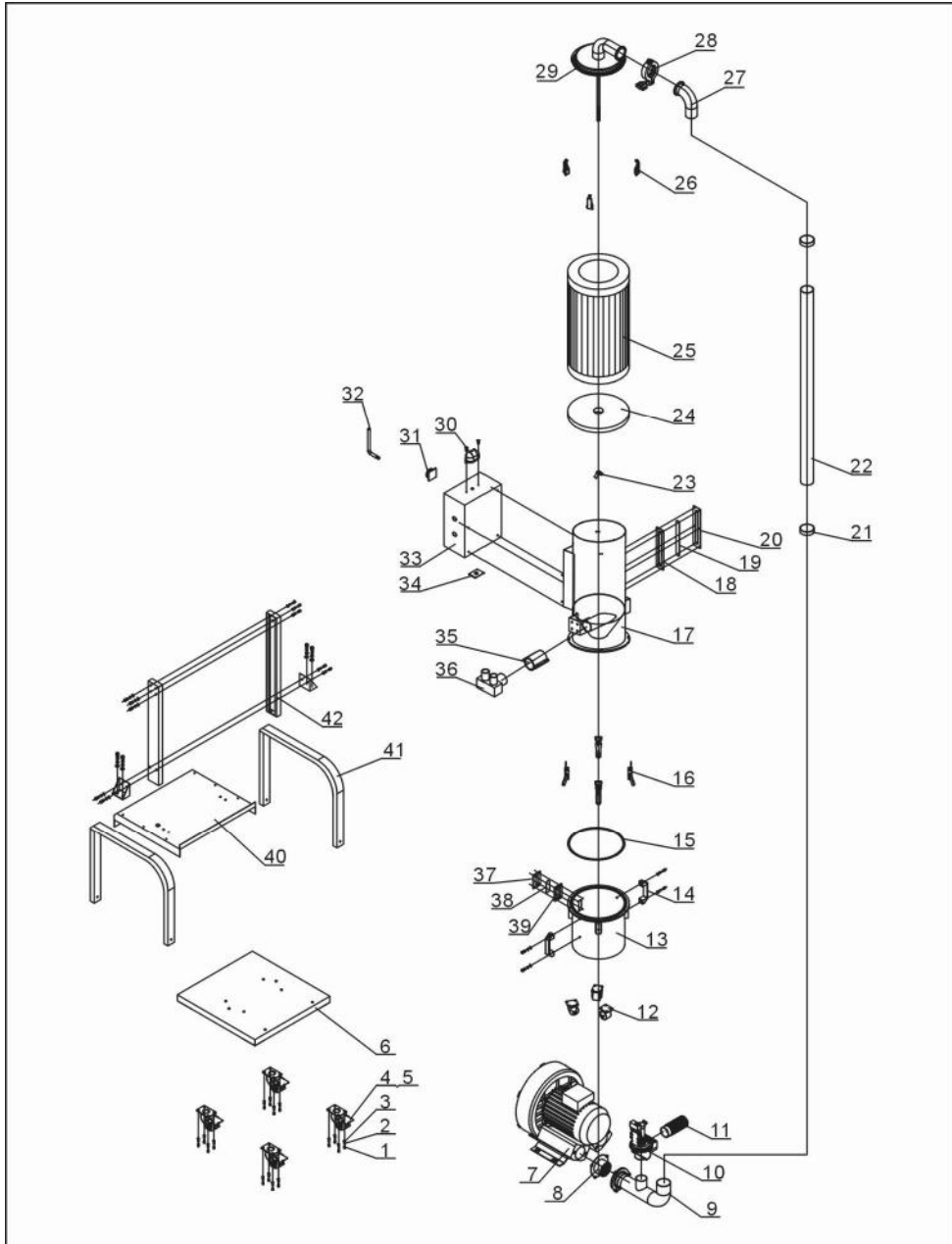
No.	Name	Part No.	No.	Name	Part No.
1	Anti-vibration pad Φ 50	YW03005000000	19	Filter barrel roll	-
2	Flat washer 8	YW66082200100	20	Six hole material window fastener	YR40000600000
3	Nut M12	YW64012100000	21	Six acryl	YR40001200000
4	Base	BL21003500120	22	Six hole material windw sheet iron	YW09000600000
5	Air inlet pipe	BL26003506520-	23	Butterfly nut 5/16"	YW69051600000
6	Blower flange	-	24	Flat washer 8	YW66082200100
7	Vacuum-breaking diaphragm valve 1.5"	BY20015000050	25	Strainer fixed plate	BL26003502520
8	Vacuum-breaking diaphragm valve piping	-	26	Filter ADC2	YR50181100000
9	Right stand column	-	27	Air suction pipe	-
10	High pressure blower 3.5HP	BM30053500050	28	Pipe clamp	YW07000200000
	High pressure blower 5HP	BM30055000050	29	Filter barrel lid assembly	-
	High pressure blower 5HP (double stage)	YM30433700000	30	Alarm light LTE-3051 AC220V	YE83305100200
11	Snap hook	YW02003000400	31	Main power switch	YE10210300000
12	Dust collecting barrel	BL26003507021	32	Control cabinet	-
13	Four hole material window fastener	YR40000400000	33	Line jig fixed plate	-
14	Four hole acryl	YR40001200100	34	Supporting structure of filter barrel	-
15	Four hole material window sheet iron	YW09000000400	35	Dedicated wrench for anti-theft screw	JT40450000000
16	Pipe bundle 2.5"	YW02002500000	36	Pipe connector2"	YW20002000700
17	Steel wire rubber pipe 2"	YR60205040100	37	T-branch pipe	-
18	Dust collecting barrel fastener	YR10708000100	38	Left stand column	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.2.5 Assembly Drawing (SAL-7.5HP/10HP (-D)-UG122)



Remarks: Please refer to material list 2.2.6 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-4: Assembly Drawing (SAL-7.5HP/10HP (-D)-UG122)

2.2.6 Parts List (SAL-7.5HP/10HP (-D)-UG122)

Table 2-3: Parts List (SAL-7.5HP/10HP (-D)-UG122)

No.	Name	Part No.	No.	Name	Part No.
1	Outer hexagon bolt M6×16	YW60061600100	21	Stainless steel Pipe bundle 3"	YW02000300000
2	Flat washer 6	YW66061300000	22	Steel wire rubber pipe2.5"	YR60253000000
3	Spring washer 6	YW65006000100	23	Butterfly nut 5/16"	YW69051600000
4	Brake universal caster 3"	YW03000300000	24	Strainer fixed plate	BL26007504720
5	Freestyle universal caster 3"	YW03000300200	25	Filter	YR50221400000
6	Base	BL26007502721	26	Snap hook	YW02003000400
7	High pressure blower 7.5HP	BM30075000050	27	Air suction pipe	-
	High pressure blower 7.5HP(two stage)	YM30635500000	28	Pipe clamp	YW07002500600
	High pressure blower 10HP	BM30081000050	29	Filter barrel lid assembly	-
	High pressure blower 10HP(two stage)	YM30637500000	30	Alarm light	YE83305100200
8	Blower flange	-	31	Main power switch	YE10210300000
9	Air inlet pipe	-	32	Dedicated wrench for anti-theft screw	JT40450000000
10	Vacuum separating valve 2"	BY20500000050	33	Control cabinet	-
11	Air refill screen	-	34	Line jig fixed plate	-
12	Universal caster 2.5"	YW03002500000	35	Pipe connector 2.5"	BH80002510050
13	Dust collecting barrel	BL26007502421	36	T-branch pipe	-
14	Aluminum handle L120	BW20012000040	37	Four hole material window fastener	YW09000000400
15	Dust collecting barrel fastener	YE32051800100	38	Four hole acryl	YR40000400000
16	Big handle	YW02003000100	39	Four hole material window sheet iron	YR40001200100
17	Filter barrel assembly	-	40	Intermediate plate	-
18	Six hole material window fastener	YR40000600000	41	Frame 1	-
19	Six acryl	YR40001200000	42	Stand column for fiter barrel	-
20	Six hole material windw sheet iron	YW09000600000			

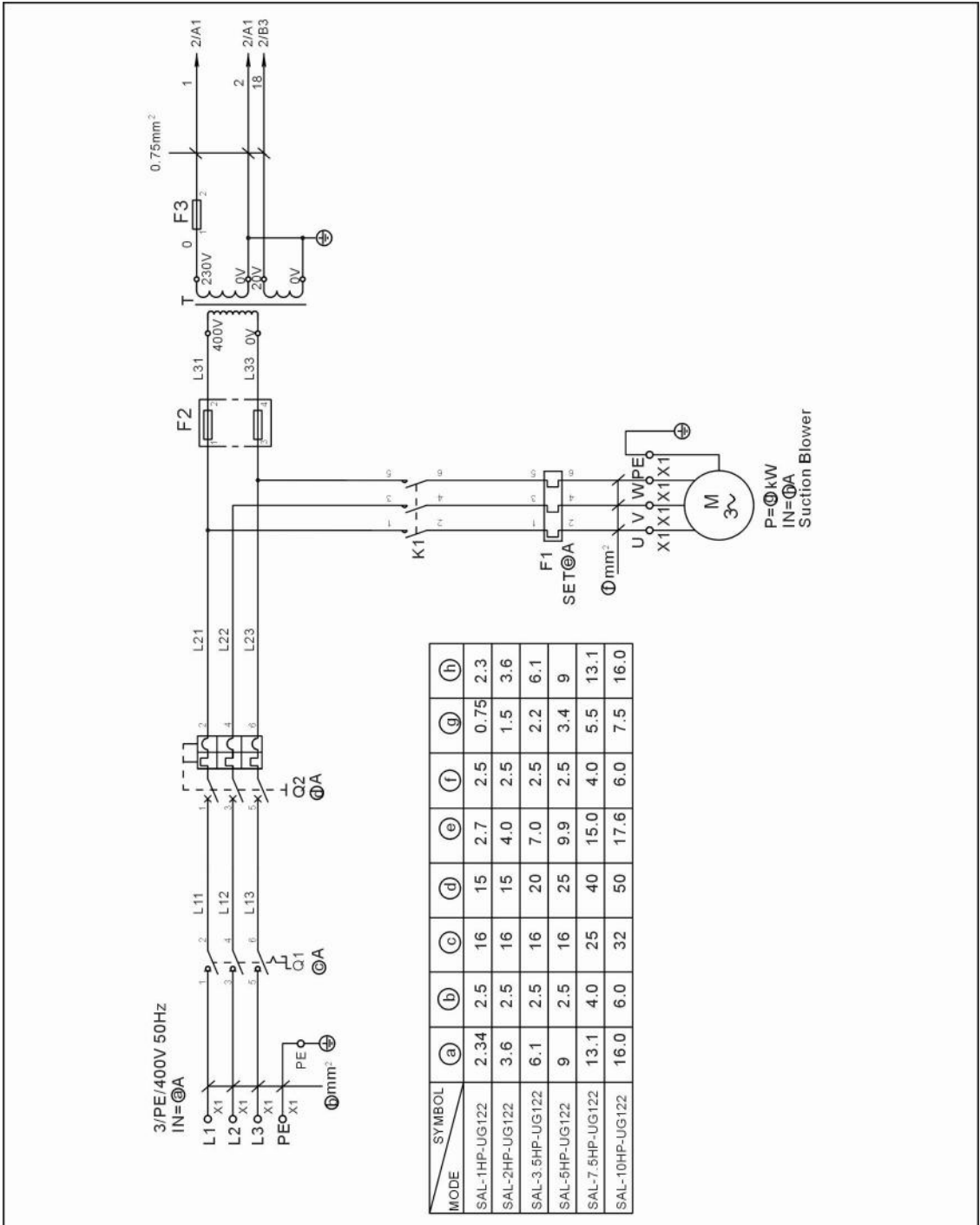
* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

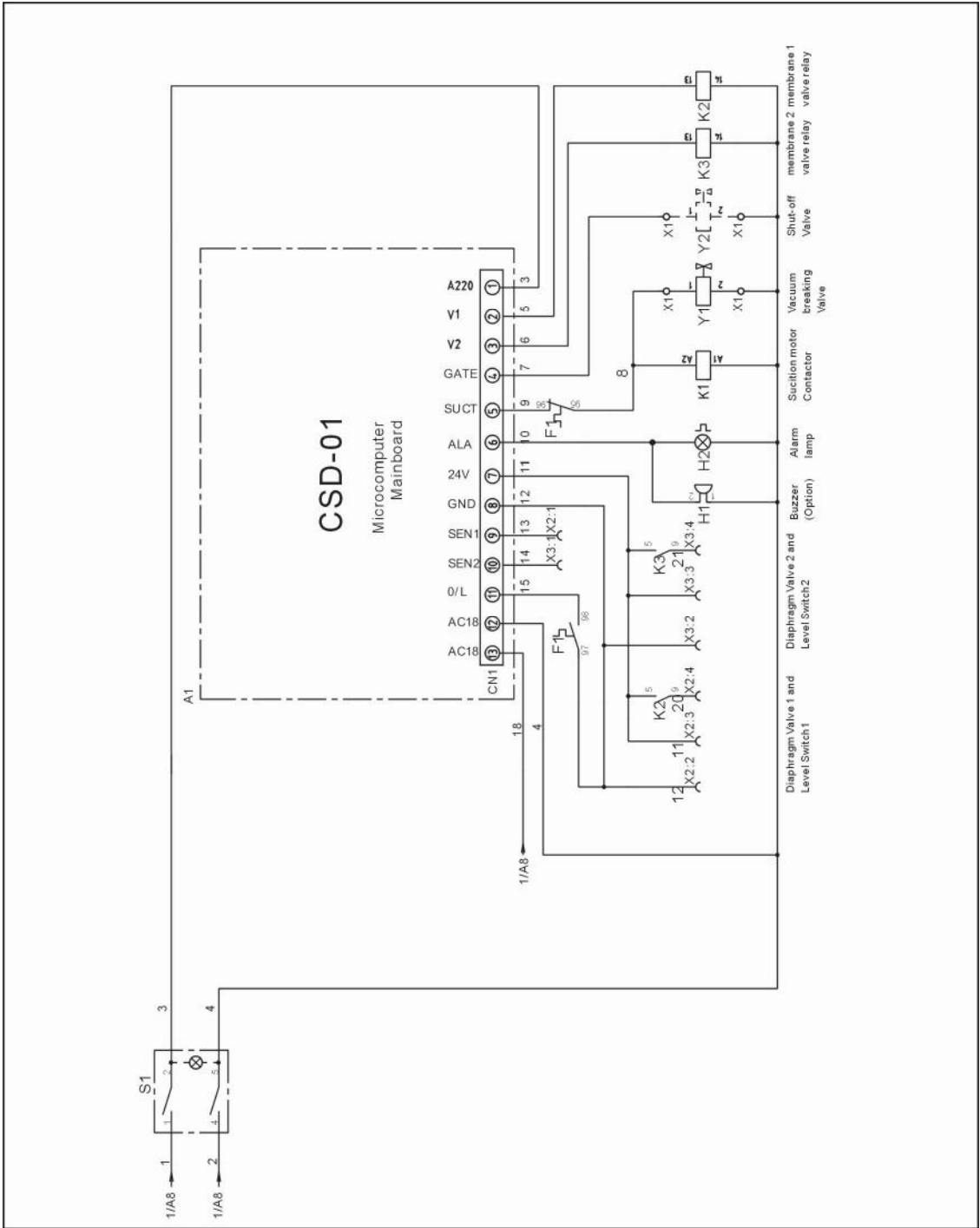
2.3 Electrical Diagram (E)

2.3.1 Main Circuit (400V)



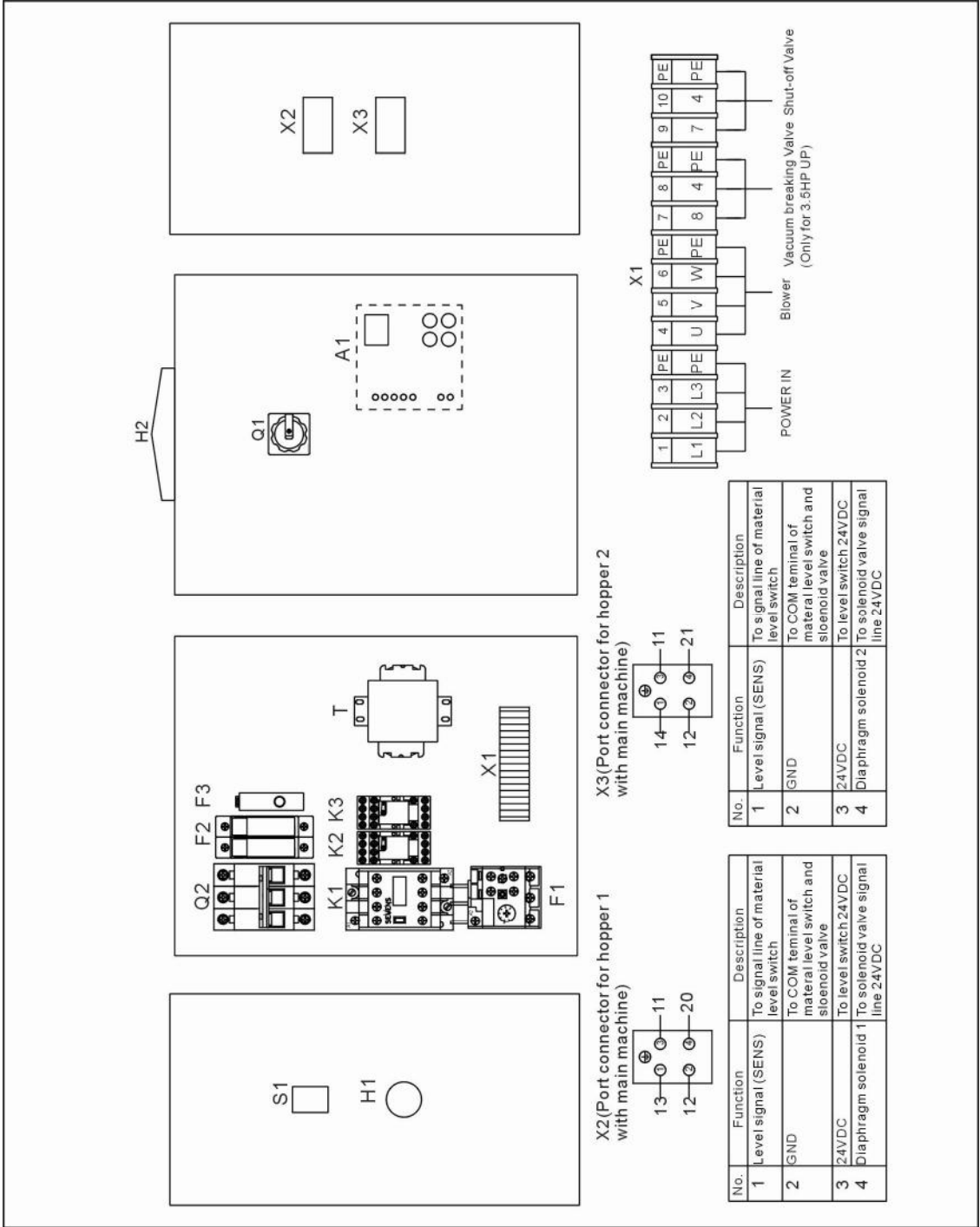
Picture 2-5: Main Circuit (400V)

2.3.2 Control Circuit (400V)



Picture 2-6: Control Circuit (400V)

2.3.3 Electrical Components Layout (400V)



Picture 2-7: Electrical Components Layout (400V)

2.3.4 Parts List (400V)

Table 2-4: Parts List (SAL-1HP-UG122) (400V)

NO.	Symbol	Name	SAL-1HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10021160000
2	Q2	Circuit-breaker**	400V 15A 3P	YE40601500000
3	K1	AC contactor**	230V 50/60Hz	YE00601521000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	2.2~3.2A	YE01160220000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 24A	YE61250000000
16	-	Terminal board	-	YE61253500000
17	X2 X3	Port	4P	YE60000040000
18	-	Port	4P	YE600000400200
19	M	Motor	1HP	-

* means possible broken parts. ** means easy broken part. and spare backup is suggested. Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-5: Parts List (SAL-2HP-UG122) (400V)

NO.	Symbol	Name	SAL-2HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10021160000
2	Q2	Circuit-breaker**	400V 15A 3P	YE40601500000
3	K1	AC contactor**	230V 50/60Hz	YE00601521000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	3.5~5A	YE01160350000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 24A	YE61250000000
16	-	Terminal board	-	YE61253500000
17	X2 X3	Port	4P	YE60000040000
18	-	Port	4P	YE600000400200
19	M	Motor	2HP	-

* means possible broken parts. ** means easy broken part. and spare backup is suggested. Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-6: Parts List (SAL-3.5HP-UG122) (400V)

NO.	Symbol	Name	SAL-3.5HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10021160000
2	Q2	Circuit-breaker**	400V 20A 3P	YE40602000000
3	K1	AC contactor**	230V 50/60Hz	YE00601621000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	5.5~8A	YE01160550000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 24A	YE61250000000
16	-	Terminal board	-	YE61253500000
17	X2 X3	Port	4P	YE60000040000
18	-	Port	4P	YE600000400200
19	M	Motor	3.5HP	-

* means possible broken parts. ** means easy broken part. and spare backup is suggested. Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-7: Parts List (SAL-5HP-UG122) (400V)

NO.	Symbol	Name	SAL-5HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10021160000
2	Q2	Circuit-breaker**	400V 25A 3P	YE40602500000
3	K1	AC contactor**	230V 50/60Hz	YE00601721000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	9~12.5A	YE01169125000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 24A	YE61250000000
16	-	Terminal board	-	YE61253500000
17	X2 X3	Port	4P	YE60000040000
18	-	Port	4P	YE600000400200
19	M	Motor	5HP	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-8: Parts List (SAL-7.5HP-UG122) (400V)

NO.	Symbol	Name	SAL-7.5HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 25A 3P	YE10125250000
2	Q2	Circuit-breaker**	400V 40A 3P	YE40604000000
3	K1	AC contactor**	230V 50/60Hz	YE00602522000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	11~16A	YE01260110000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 32A	YE61040000000
16	-	Terminal board	-	YE61043500000
17	-	Terminal board	800V 24A	YE61250000000
18	-	Terminal board	-	YE61253500000
19	X2 X3	Port	4P	YE60000040000
20	-	Port	4P	YE60000400200
21	M	Motor	7.5HP	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-9: Parts List (SAL-10HP-UG122)(400V)

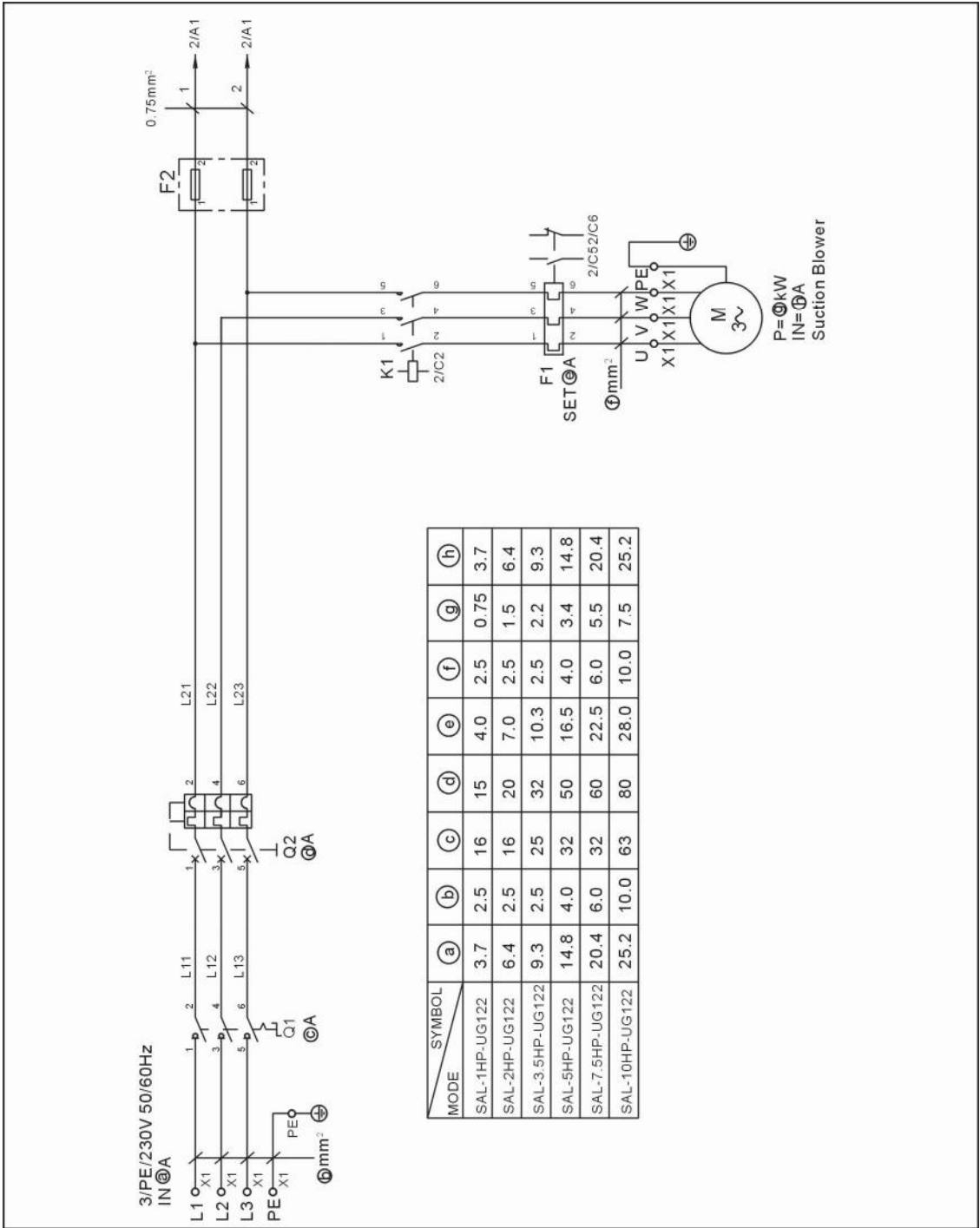
NO.	Symbol	Name	SAL-10HP-UG122(400V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 32A 3P	YE10323200000
2	Q2	Circuit-breaker**	400V 50A 3P	YE40605000000
3	K1	AC contactor**	230V 50/60Hz	YE00602622000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500000
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload raleys	14~20A	YE01260140000
8	F2	Fuse box	250V 2P 32A	YE41032200000
9	-	Fuse**	500V 1A	YE46001000100
10	F3	Fuse box	250V 2A	YE41001000000
11	T	Transformer**	500mA	YE70504000000
12	S1	Control switch*	4P (WH)	YE10210400000
13	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
14	A1	Circuuit board	18VAC 50/60Hz	YE80101100000
15	X1	Terminal board	800V 41A	YE61060000000
16	-	Terminal board	-	YE61063500000
17	-	Terminal board	800V 24A	YE61250000000
18	-	Terminal board	-	YE61253500000
19	X2 X3	Port	4P	YE60000040000
20	-	Port	4P	YE600000400200
21	M	Motor	10HP	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

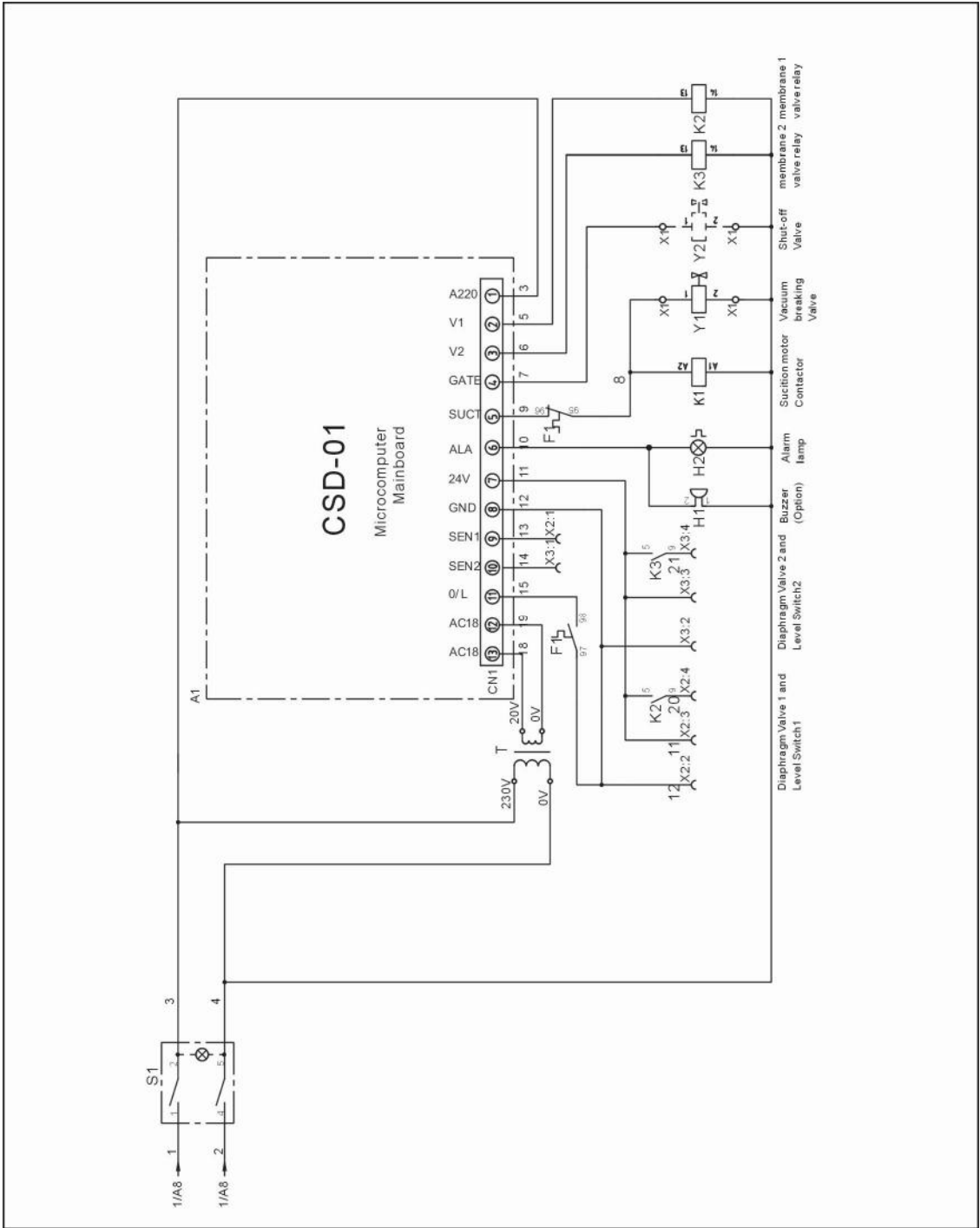
Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.3.5 Main Circuit (230V)



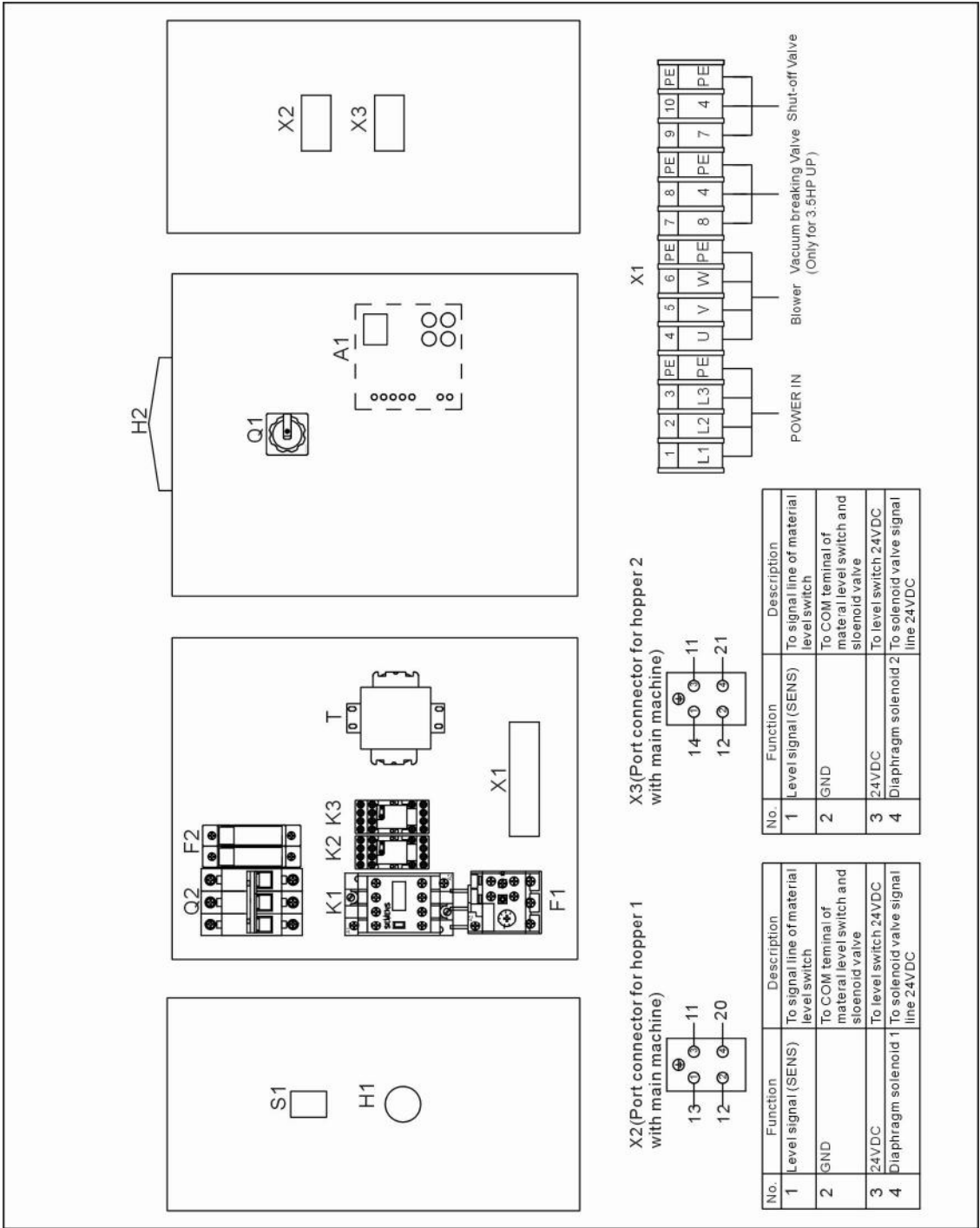
Picture 2-8: Main Circuit (230V)

2.3.6 Control Circuit (230V)



Picture 2-9: Control Circuit (230V)

2.3.7 Electrical Components Layout (230V)



Picture 2-10: Electrical Components Layout (230V)

2.3.8 Parts List (230V)

Table 2-10: Parts List (SAL-1HP-UG122) (230V)

NO.	Symbol	Name	SAL-1HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10211600000
2	Q2	Circuit breakers**	500V 15A 3P	YE40601500000
3	K1	Contactors**	230V 50/60Hz	YE00601521000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	3.5~5A	YE01160350000
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 24A	YE61250000000
15	-	Terminal block	-	YE61253500000
16	X2 X3	Port	4P	YE60000040000
17	-	Port	4P	YE60000400200
18	M	Motor	1HP 230V 50/60Hz	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-11: Parts List (SAL-2HP-UG122) (230V)

NO.	Symbol	Name	SAL-2HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 16A 3P	YE10211600000
2	Q2	Circuit breakers**	500V 20A 3P	YE40602000000
3	K1	Contactors**	230V 50/60Hz	YE00601621000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	5.5~8A	YE01160550000
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 24A	YE61250000000
15	-	Terminal block	-	YE61253500000
16	X2 X3	Port	4P	YE60000040000
17	-	Port	4P	YE60000400200
18	M	Motor	2HP 230V 50/60Hz	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-12: Parts List (SAL-3.5HP-UG122) (230V)

NO.	Symbol	Name	SAL-3.5HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 25A 3P	YE10125250000
2	Q2	Circuit breakers**	500V 32A 3P	YE40603200000
3	K1	Contactors**	230V 50/60Hz	YE00601721000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	9~12.5A	YE01169125000
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 24A	YE61250000000
15	-	Terminal block	-	YE61253500000
16	X2 X3	Port	4P	YE60000040000
17	-	Port	4P	YE60000400200
18	M	Motor	3.5HP 230V 50/60Hz	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-13: Parts List (SAL-5HP-UG122) (230V)

NO.	Symbol	Name	SAL-5HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 25A 3P	YE10323200000
2	Q2	Circuit breakers**	500V 32A 3P	YE40605000000
3	K1	Contactors**	230V 50/60Hz	YE00602522000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	14~20A	YE01260140000
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 32A	YE61040000000
15	-	Terminal block	-	YE61043500000
16	-	Terminal block	800V 24A	YE61250000000
17	-	Terminal block	-	YE61253500000
18	X2 X3	Port	4P	YE60000040000
19	-	Port	4P	YE60000400200
20	M	Motor	5HP 230V 50/60Hz	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-14: Parts List (SAL-7.5HP-UG122) (230V)

NO.	Symbol	Name	SAL-7.5HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 32A 3P	YE10323200000
2	Q2	Circuit breakers**	500V 60A 3P	YE40606000000
3	K1	Contactors**	230V 50/60Hz	YE00602622000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	20~25A	YE01260200000
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 41A	YE61060000000
15	-	Terminal block	-	YE61063500000
16	-	Terminal block	800V 24A	YE61250000000
17	-	Terminal block	-	YE61253500000
18	X2 X3	Port	4P	YE60000040000
19	-	Port	4P	YE60000400200
20	M	Motor	7.5HP 230V 50/60Hz	-

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Table 2-15: Parts List (SAL-10HP-UG122) (230V)

NO.	Symbol	Name	SAL-10HP-UG122(230V)	
			Specification	Part NO.
1	Q1	Main switch*	690V 63A 3P	YE10636300000
2	Q2	Circuit breakers**	500V 80A 3P	YE40800300000
3	K1	Contactors**	230V 50/60Hz	YE00602722000
4	K2 K3	Middle raley	230V 50/60Hz	YE03570700000
5	H1	Buzzer	60~250VAC	YE84003500100
6	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
7	F1	Overload relays	27~32A	YE01612600600
8	F2	Fuse box	500V 2A 32A	YE41032200000
9	-	Fuse	500V 2A 10×38	YE46002000100
10	T	Transformer**	350mA	YE70202300400
11	S1	Control switch*	4P (WH)	YE10210400000
12	Y1 Y2	Solenoid valve*	230V 50/60Hz	-
13	A1	PCB	18VAC 50/60Hz	YE80101100000
14	X1	Terminal block	800V 57A	YE61100000000
15	-	Terminal block	-	YE61103500000
16	-	Terminal block	800V 24A	YE61250000000
17	-	Terminal block	-	YE61253500000
18	X2 X3	Port	4P	YE60000040000
19	-	Port	4P	YE60000400200
20	M	Motor	10HP 230V 50/60Hz	-

* means possible broken parts.

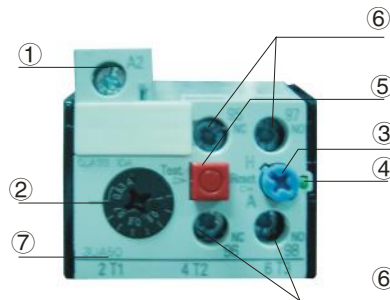
** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.4 Electrical Component Instruction

Overload Relay

At delivery, the overload relay is set for manual reset. (the reset button pointing to H). Manually reset the relay at the tripping of the switch. When motor overload occurs, stop the machine, then check and solve the problem. After that open the door of control box, press down the reset button of overload relay (if you can not press down the reset button, wait for one minute).



Picture 2-11: Overload Relay

- 1) Terminal for contact coil A2.
- 2) Setting current adjusting scale.

3) Reset (blue).

H: manual reset

A: automatic reset

- 4) Switch position indication (green).

Tripping of a manual-resetting is indicated by a pin projecting from the front plate.

- 5) Test button (red).

- 6) Auxiliary contact terminals shown in 95.96.97.98. NC and NO contacts are shown in position 95.96. and 97.98. respectively.

- 7) Main circuit connection No. must be correspond with terminal Number of contactor.

2.5 Optional Accessories

2.5.1 Air Accumulator

2.5.1.1 Function of air Accumulator



Picture 2-12: Air Accumulator

2.5.1.2 Specification of air Accumulator

Air accumulator: HxD=170x76mm



Note!

Please fix the air supply correctly. Air pressure not less than 4 bar.

3. Installation and Debugging



Read this chapter carefully before installation of the machine. Install the machine by following steps.

Power supply should be fixed by qualified technicians!

3.1 Installation Space

When install this machine, make sure to have enough space for installation (there should be 1m remain space around the machine), like show in the figure. It is not convenient for checking and maintenance of the machine if it is installed in a narrow space.



Picture 3-1: Installation Space

3.2 Power Connection

Make sure the power supply is complied with the required specification before connection.

The power specification of the machine is preset as 3 Φ 400V usually and can be also made on customer's specific requirements.



Before connecting to power supply, make sure the power switch is in shut off position.

4. Application and Operation

4.1 Control Panel





Picture 4-1: Control Panel

4.2 OPERATION

- 1) Connect the power supply, "--" is displayed on LED, then enter to set loading time.
- 2) Press key "⊖", the lamp of LOAD1 is red. Then press key "▲▼" to set the loading time of LOAD1.
- 3) Press the key "⊖" again, the lamp of LOAD2 is red. Then press the key "▲▼" to set the loading time of LOAD2.
- 4) Press the key "⊖" once more, the lamp of GATE is red. Then press the key "▲▼" to set the loading time of shut-off valve.
- 5) After setting, press key "☑" to confirm.
- 6) Press once the key "☑", the LOAD1 will auto-working. Press twice the key "☑", the LOAD2 will auto-working. Press three times the key "☑", the Shut-off valve will auto-working. Then press four times the key "☑", the machine is stop.

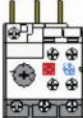
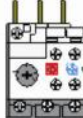
4.3 NOTES

1) When running out of material, or the motor is overload, the operation will auto-stop and sound the alarm. Press  button for closing the alarm sound and stoppage.

After refilling the material, Press the  button to start the operation.

2) Check suction filter periodically and clean filter screen if necessary.

5. Trouble-shooting

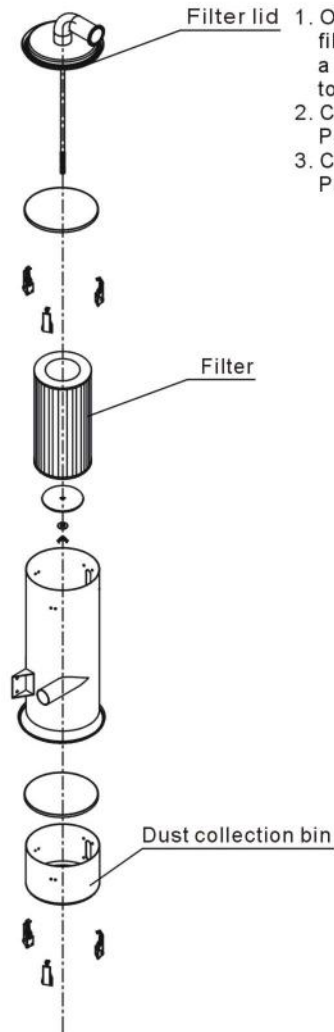
Failures	Possible reasons	Solutions
When shortage lasts long, but suction blower don't run.	1. The main switch and control switch don't open or the above two don't connect well.	1. Close the main switch and control switch and check their connecting.
	2. The microswitch on hopper don't connect well.	2. Adjust or replace.
	3. The signal wire is break.	3. Re-connect.
The suction blower still run, if the hopper is full.	The touch point is conglutinated.	Repair or replace.
After several times of loading the material hopper still empty or the material shortage alarm occur.	1. The storage tank is empty.	1. Add the material.
	2. The pipe is air leak.	2. Lock tightly and replace the vacuuming pipe.
	3. The filter is block.	3. Clean the filter.
The motor can't run.	Short-phase or motor was burnt out.	Check and replace.
The fuse always was burn out after start-up.	Short circuit or connect the ground.	Check the circuit.
Motor overload alarm occur	1. The filter is block.	Clean the filter and reset the overload relay. 
	2. One of three phase is lacking.	Check the circuit and reset the overload relay. 

6. Maintenance and Repair



All the repairs work should be done by professionals in order to prevent personal injuries and damage of the machine.

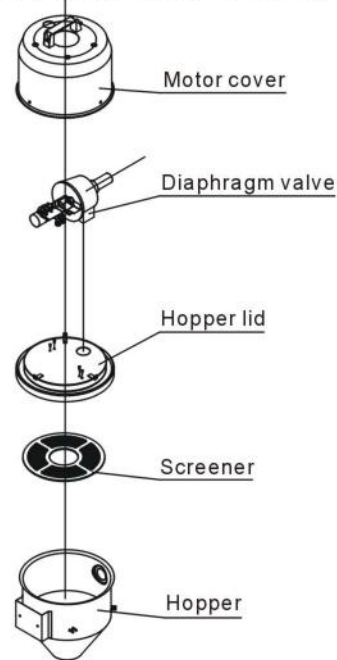
Main body, Filter Inspection and Storage Hopper Cleanup



1. Open the filter lid and remove the filter, blow away the dust on it with a high pressure air gun from inside to outside.
2. Clean the filter.
Period: daily
3. Clean the dust collection bin.
Period: daily

Hopper, Screener

1. Loosen the snap hook of the tank, remove the filtering barrel lid, take out the plate filter and eliminate the dust on it.
2. Clean the plate filter. Period: daily



6.1 Material Hopper

Clean material hopper periodically or when you find conveying capacity reduced. Please loose the spring clips, take down the hopper lid, and take out filter screen. Remove all the dusts and fines on filter screen and inside of material hopper.

6.2 Main Body

Take out the air filter to make it clean periodically or when you find conveying capacity reduced. Always keep smooth air flow through air filter to maintain good conveying capacity.

Cleaning steps:

- 1) Loosen spring clips of filter cover and butterfly screws, and take out the filter.
- 2) Remove the dusts adhering to the filter to keep good suction power.

6.3 Reed Switch, Photoelectric Switch

Reed switch

When the indicator of the reed switch doesn't work, check the switch contact and replace with a new one if it doesn't work well.

- 1) Unscrew the outer box of the sensor.
- 2) Adjust the depth or move position the sensor inserted into the box, the indicator lamp lights means that magnetism has been detected and the switch is well worked.
- 3) If magnetism cannot be detected by magnets, please check whether the switch is bad contacted or damaged.

Photoelectric Switch

When the indicator of the photoelectric switch doesn't work, check the switch contact and replace with a new one if it doesn't work well.

- 1) Check whether the wires are bad contacted.
- 2) Please replace with a new one if the switch is damaged.

6.4 Weekly Checking

- 1) Check if there are broken electrical wires or not. Replace the broken wires immediately.
- 2) Check the function of the keys on the control panel.
- 3) Check if conveying hose connections at material inlet are loose or not, and if the seal ring is sealed up.



Note!

Cut off power supply when you check electrical wires.

6.5 Monthly Checking

- 1) Check if the clips of hopper lid is loose or not.

- 2) Check if the stopping flap is out of shape. If it is, please replace it.
- 3) Check the performance of magnetic proximity switch or photo sensor. If there is poor contact, adjust or replace it.
- 4) Check the working condition of the suction motor.

6.6 Maintenance Schedule

6.6.1 About the Machine

Model _____ SN _____ Manufacture date _____

Voltage _____ Φ _____ V Frequency _____ Hz Power _____ kW

6.6.2 Installation & Inspection

- Check if the takeover pipe has been correctly connected.
- Check if that pipe is locked up by clips.
- Check if mounting base is locked tightly.

Electrical Installation

- Voltage: _____ V _____ Hz
- Fuse melting current: One-phase: A _____ Three-phase: _____ A
- Check phase sequence of power supply.

6.6.3 Daily Checking

- Check main power switch.
- Check filter mesh.
- Check working status of the motor.

6.6.4 Weekly Checking

- Check all the electrical cables.
- Check if there are loose connections of electrical components.
- Check the screw of the feed-in pipe's flange is loosed or not.
- Check the air filter.

6.6.5 Monthly Checking

- Check the spring lock on the hopper cover is loosed or not.
- Check the reversal stop piece is deformed or not.
- Check the function of the magnetic proximity switch.